

REMARKS

Claim 40 - 82 are pending. Claims 1 - 39 have been cancelled. Claims 40 - 82 have been added. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the February 23, 2005 Office Action, the Examiner rejected claims 1 - 2, 12 - 13, 15, and 21 under 35 U.S.C. § 112, first paragraph because the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to make or use the invention. The applicants have cancelled claims 1 - 2, 12 - 13, 15, and 21. Accordingly, the applicants respectfully submit that the rejection of claims 1 - 2, 12 - 13, 15, and 21 should be withdrawn.

In the February 23, 2005 Office Action, the Examiner rejected claims 1 - 2 and 24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,301,513 to Divon ("the Divon reference") in view of U.S. Patent No. 5,283,819 to Glick ("the Glick reference"). The Examiner rejected claims 12, 18 - 20, and 30 under 35 U.S.C. § 103(a) as being unpatentable over the Divon reference in view of U.S. Patent No. 5,792,971 to Timis ("the Timis reference"). The Examiner rejected claims 3 - 8 under 35 U.S.C. § 103(a) as being unpatentable over the Divon reference in view of the Glick reference and further in view of the Timis reference. The Examiner rejected claims 27 - 28 and 36 under 35 U.S.C. § 103(a) as being unpatentable over the Divon reference in view of the Glick reference and further in view of U.S. Patent No. 5,774,567 to Heyl ("the Heyl reference"). The Examiner rejected claims 15 and 32 under 35 U.S.C. § 103(a) as being unpatentable over the Divon reference in view of the Heyl reference. The Examiner rejected claims 16 - 17 under 35 U.S.C. § 103(a) as being unpatentable

over the Divon reference in view of the Timis reference and further in view of U.S.

Patent No. 6,314,326 to Fuchu ("the Fuchu reference"). The Examiner rejected claims 13 - 14, 21, 31, and 33 under 35 U.S.C. § 103(a) as being unpatentable over the Dixon reference in view of U.S. Patent no. 5,524,060 to Silfvast ("the Silfvast reference") and the Timis reference. The Examiner rejected claims 25 - 26 under 35 U.S.C. § 103(a) as being unpatentable over the Glick reference in view of U.S. Patent No. 5,212,733 to DeVitt ("the DeVitt reference"). The Examiner rejected claim 37 under 35 U.S.C. § 103(a) as being unpatentable over the Divon reference in view of the Glick reference. The Examiner rejected claim 38 under 35 U.S.C. § 103(a) as being unpatentable over the Divon reference in view of the Heyl reference. The applicants have drafted new claims to address specific features of the invention. These rejections are respectfully traversed in so far as they are applicable to the presently pending claims.

Independent claim 40 distinguishes over the cited references. Independent claim 40 recites:

An audio system comprising:  
a serial bus cable;  
an audio device, including

**a serial bus interface (I/F) unit that is connectable to the serial bus cable so as to transmit and receive digital audio data via the serial bus cable, wherein the serial bus I/F unit separates audio data and control data from the received digital audio data,**

a signal processor that is connected to the serial bus I/F unit and that performs prescribed digital signal processing,

a D/A converter that is connected to the signal processor so as to convert the digital audio data into analog audio signals,

an audio output section for outputting the analog audio signals from the D/A converter,

a loudspeaker for performing electro-acoustic conversion on the analog audio signals so as to provide an audio output,

**a system control unit that controls the audio device based on the control data, which are isolated by the serial bus I/F unit and that is capable of transmitting the control data of the audio device to the serial bus cable via the serial bus I/F unit,**

an operational switch that is a manually operable member controlled by a user,  
and

a display that can display the content of operation and control of the audio device for the user; and  
a personal computer, including  
    a CPU for executing operating software and application software,  
    a first I/F that is connectable to the serial bus cable so as to perform bi-directional transmission with the audio device via the serial bus cable,  
    a second I/F that is connectable to a communication line and that serves as a network interface for inputting and outputting data via the communication line,  
    a graphical user's interface (GUI) that has a data input section operated by the user,  
    a display for displaying data necessary to operate the audio device,  
    a control data processor that is connected to the first I/F and the graphical user's interface so as to control the personal computer based on the control data given from the first I/F and that produces control data based on the operation of the graphical user's interface and sends it to the serial bus cable via the first I/F,  
    an audio data storage that serves as a memory for storing the digital audio data,  
and  
    an audio data processor that selects prescribed digital audio data stored in the audio data storage based on the operation of the graphical user's interface so as to send it to the serial bus cable via the first I/F,  
    wherein each of the audio device and the personal computer is capable of reproducing the digital audio data independently,  
    the control data allowing the audio data to operate and the digital audio data reproduced in the audio device are produced based on the operation of the graphical user's interface,  
    **the control data and the digital audio data are sent to the audio device, and**  
    **the control data produced by the audio device is sent to the personal computer so as to reflect the content of the control data on the graphical user's interface displayed in the display in such a way that the operation information of the audio data match the operation of the graphical user's interface.**

The Divon reference does not disclose, teach, or suggest the audio system of claim 40. Specifically, the Divon reference discloses that a listener connects link 26 between a communication port 28 of the computer and one of the communication ports 34 or 36 of the diskette-cassette 10. A listener then requests that computer 16 download digital data (text, digitized speech, lectures) from the computer onto the diskette-cassette. The user can then place the diskette-cassette into an audio system 14 and then listen to the digital data. The listener commands the diskette-cassette 10 (via voice or a key pad on a remote control) to play various pieces or segments of the digital data stored on the diskette-cassette. (*Divon*, col. 5, line 61 - col. 6, col. 8). The digital data can be text data or digitized audio data. The diskette-cassette converts the

digitized audio data to an analog form and then provide it to the playback deck. A listener can sift through a large set of audio pieces or segments, marking for subsequent processing or storage only those segments which are of interest to him.

The diskette-cassette 10 includes a remote controller receiver 50, a digital I/O interface unit 52, a processor 54, a digital storage unit 56, an analog I/O interface unit 58, a power supply 60, and an internal data bus 62. The remote controller receiver 50 receives a signal from a remote controller 18 and provides the command info to the digital interface unit 52. The digital interface unit 52 receives the digital commands and provides them via a bus to the processor 54. The unit 52 also receives from communication link 26 digital data to be stored in the storage unit 56 of the cassette. The unit 52 can also provide an output via the communication link 26 the market segments of digital data. The storage unit 56 receives address signals 84 and data signals 86. The analog interface unit 58 communicates with the playback head 90 of the playback deck 14 and optionally with a microphone 32. The diskette-cassette can also directly load data via a telephone line, a radio interface, and a television interface. *(Divon, col. 6, line 46 - col. 7, line 57; col. 8, lines 38 - 45).*

This is not the same as an audio system including an serial cable, an audio device, and a personal computer, the audio device having a **serial bus I/F unit that is connectable to the serial bus cable so as to transmit and receive digital audio data via the serial bus cable, wherein the serial bus I/F unit separates audio data and control data from the received digital audio data, and a system control unit that controls the audio device based on the control data, which are isolated by the serial bus I/F unit and that is capable of transmitting the control data of the**

**audio device to the serial bus cable via the serial bus I/F unit.** It is not the same because the Divon reference discloses that the diskette-cassette, not the audio device 14, includes a digital interface unit 52 that receives digital commands and provides them via bus to processor 54 and also discloses that unit 52 also receives data to be stored in storage unit 56. The Divon reference does not disclose that the audio device has a serial bus I/F unit that is connectable to the serial bus cable so as to **transmit and receive digital audio data via the serial bus cable, wherein the serial bus I/F unit separates audio data and control data from the received digital audio data**, as is recited in claim 40. Instead, the Divon reference audio device 14 communicates with the analog interface unit 58 of the diskette-cassette and a transducer 98 of the audio device can enable the magnetic playback head of the player 14 to pick up a signal as it was from a magnetic system. Accordingly, applicants respectfully submit that claim 40 distinguishes over the Divon reference.

Claim 40 further distinguishes over the Divon reference. The Divon reference does not disclose an audio system including an audio device and a personal computer, the personal computer including a graphical user interface (GUI) wherein each of the audio device and the personal computer is capable of reproducing the digital audio data independently, the control data allowing the audio data to operate and the digital audio data reproduced in the audio device are produced based on the operation of the graphical user's interface, **the control data and the digital audio data are sent to the audio device, and the control data produced by the audio device is sent to the personal computer so as to reflect the content of the control data on the graphical user's interface displayed in the display in such a way that the**

**operation information of the audio data match the operation of the graphical user's interface.** There is no disclosure of a graphical user interface in the Divon reference. More specifically, there is no disclosure in the Divon reference that control data and audio data are sent to the audio device because in the Divon reference, the audio data and commands are sent to the diskette - cassette and not the audio device and further because no graphical user interface is explicitly disclosed. Further, there is no disclosure in the Divon reference that **control data from the audio device is sent to the personal computer so as to reflect the content of the control data in such a way that the operation information of the audio data matches the operation of the graphical user's interface**, as is recited in claim 40, as amended. Accordingly, claim 40 further distinguishes over the Divon reference.

The Timis reference does not make up for the deficiencies of the Divon reference. The Examiner states, when rejecting previously pending claims 18 - 20 (which included GUI limitations), that the Timis reference teaches that the audio source corresponds to a tuner or recording media (hard drive) and audio system wherein the personal computer uses a GUI 182 creates control data for controlling operation of the audio device. (*Office Action, page 9; Timis, col. 6, line 63 - col. 7, line 33*). The reference numeral 182 that the Examiner refers to in the Office Action is a set of MIDI slides which is not the same as a graphical user interface of a personal computer. There is no disclosure that the MIDI sliders are displayed on a GUI of a computer display. Thus, the Timis reference does not disclose a personal computer including a GUI, wherein each of the audio device and the personal computer is capable of reproducing the digital audio data independently, the control data allowing the audio

data to operate and the digital audio data reproduced in the audio device are produced based on the operation of the graphical user's interface, **the control data and the digital audio data are sent to the audio device, and the control data produced by the audio device is sent to the personal computer so as to reflect the content of the control data on the graphical user's interface displayed in the display in such a way that the operation information of the audio data match the operation of the graphical user's interface.** The Timis reference does not disclose a GUI in the computer. Further, there is no disclosure in the Timis reference of an audio system including an the audio device, the audio device having **a serial bus I/F unit that is connectable to the serial bus cable so as to transmit and receive digital audio data via the serial bus cable, wherein the serial bus I/F unit separates audio data and control data from the received digital audio data, and a system control unit that controls the audio device based on the control data, which are isolated by the serial bus I/F unit and that is capable of transmitting the control data of the audio device to the serial bus cable via the serial bus I/F unit.** Accordingly, applicants respectfully submit that claim 40 distinguishes over the Divon / Timis combination.

The DeVitt reference does not make up for the deficiencies of the Divon and Timis references. The Examiner states that the DeVitt reference discloses that a GUI allows the controlling of the audio device by user of a plurality of operational panels displayed on a screen of a display. (*Office Action, page 19*). Specifically, the DeVitt reference discloses that a sound mixing system is used to mix one or more sound input signals into a plurality of sound outputs signals by displaying the sound input signals in

a multidimensional sound output signal space. A mouse and keyboard are used to move icons representing sound input signals around the screen display and as the icons are moved, the mix of the input signals changes. (*DeVitt*, col. 5, lines 19 - 28).

This is not the same as an audio system including a personal computer and audio device, the personal computer including a GUI, **wherein each of the audio device and the personal computer is capable of reproducing the digital audio data independently**, the control data allowing the audio data to operate and the digital audio data reproduced in the audio device are produced based on the operation of the graphical user's interface, **the control data and the digital audio data are sent to the audio device, and the control data produced by the audio device is sent to the personal computer so as to reflect the content of the control data on the graphical user's interface displayed in the display in such a way that the operation information of the audio data match the operation of the graphical user's interface**. The *DeVitt* reference does not disclose that each of a PC and an audio device reproduces the digital audio device independently. Further, there is no disclosure that the control data and the audio data are sent to the audio device because the *DeVitt* reference is disclosing a sound mixing system including a computer and a mixing system and does not disclose a computer and a separate audio device. In addition, there is no disclosure in the *DeVitt* reference that the **control data produced by the audio device is sent to the personal computer so as to reflect the content of the control data on the graphical user's interface displayed in a display**.

Accordingly, applicants respectfully submit that claim 40 distinguishes over the *DeVitt* / *Divon* / *Timis* combination.



The Glick reference does not make up for the deficiencies of the Divon, Timis, and Devitt references. The Examiner, in rejecting claims previously pending in the patent application, stated that the Glick reference discloses creating GUI for controlling the audio device to allow selection of an audio source with respect to an audio device and to allow mixing of the audio data of the selected audio source together with other audio data created by a computer. The Examiner also stated that the GUI outputs control data to the audio device based on the operation of the GUI and receiving information regarding information of the GUI as the control data and providing this to a GUI. (*Office Action, page 18*).

Specifically, the Glick reference discloses a remotely controllable computing and multimedia entertainment system. The Glick reference does not disclose **a separate computer and audio device, which are connected via a serial bus cable**, as is recited in claim 40. Instead, the Glick reference discloses a computer system incorporating a telecommunications circuit 12 and an audio multimedia circuit 14. There is no disclosure of a serial bus cable connecting a personal computer and an audio device. The Glick reference also discloses a multimedia graphical user interface software system. The Glick reference discloses only the hierarchical structure of the application programs for the workstation. The Glick reference discloses that the multimedia graphical user interface can control high capacity media devices to provide high quality audio or video playback without tremendous storage requirements. (*Glick, col. 34, lines 22 - 65*).

However, there is no disclosure in the Glick reference that an audio system includes an audio device and a personal computer, the personal computer including a

graphical user interface (GUI) wherein each of the audio device and the personal computer is capable of reproducing the digital audio data independently, the control data allowing the audio data to operate and the digital audio data reproduced in the audio device are produced based on the operation of the graphical user's interface, the control data and the digital audio data are sent to the audio device, and the control data produced by the audio device is sent to the personal computer so as to reflect the content of the control data on the graphical user's interface displayed in the display in such a way that the operation information of the audio data match the operation of the graphical user's interface. The Glick reference audio multimedia circuit, because it is incorporated into the system, cannot reproduced the audio data independently of the personal computer, as recited in claim 40. There is also no explicit disclosure in the Glick reference that the control data produced by the separate audio device is sent to the personal computer to reflect the content of the control data on the GUI's displayed in the display in such a way that the operation information of the audio data match that of the graphical user's interface. Accordingly, claim 40 distinguishes over the Glick / Divon / Timis / DeVitt combination.

Claims 41 - 82 depend, indirectly or directly, on claim 40, as amended. Accordingly, claims 41 - 82 distinguish over the Divon / Timis / DeVitt / Glick reference combination for the same reasons as discussed above in regard to claim 40.

Claims 50, 51, 52, and 53 further distinguish over the cited references. Claim 50 recites:

An audio system according to claim 49 further including a digital interface receiver for separating control bits and audio data from digital data input thereto.

Claim 51 recites:

An audio system according to claim 50, wherein the digital interface receiver (DIR) detects a reproduction clock frequency from the digital data so as to extract data in synchronization with the reproduction clock frequency, and wherein the DIR separates the control bits from the extracted data.

Claim 52 recites:

An audio system according to claim 51, wherein the DIR verifies whether or not the digital data input thereto are reliable.

Claim 53 recites:

An audio system according to claim 52, wherein the DIR performs verification based on a sampling frequency.

There is no disclosure in the Divon, Timis, DeVitt, and Glick references of a digital interface receiver that separates data bits and control bits, detects a reproduction clock frequency, verifies whether the data is reliable, or performs verification based on a sampling frequency. Accordingly, claims 50 - 53 further distinguish over the Divon / Timis / DeVitt / Glick combination.

Claim 76 further distinguishes over cited references. Claim 76 recites:

An audio system according to claim 75, wherein the audio data and the control data are separated from each other based on a start-of-frame (SOF), which is detected from a basic frame.

None of the cited references disclose that the audio data and control data are separated from each other based on a start-of-frame. Accordingly, applicants respectfully submit that claim 76 distinguishes over the Divon / Timis / DeVitt / Glick combination.

Claim 79 further distinguishes over the cited references. Claim 79 recites:

An audio system according to claim 78, wherein the audio data and

the control data are separated from each other upon reception of a self-ID packet.

None of the cited references disclose that the audio data and the control data are separated from each other upon reception of a self-ID packet. Accordingly, applicants respectfully submit that claim 79 further distinguishes over the Divon / Timis / DeVitt / Glick combination.

Claim 80 further distinguishes over the cited references. Claim 80 recites:

An audio system according to claim 40 further including plural types of serial bus cables, wherein the audio data and the control data are transmitted using different cables.

There is no disclosure in any of the cited references that plural types of serial bus cables are utilized and that the audio data and the control data are transmitted using different cables. In other words, there is no disclosure of separate cables for the audio data and the control data. Accordingly, applicants respectfully submit that claim 80 further distinguishes over the Divon / Timis / DeVitt / Glick combination.

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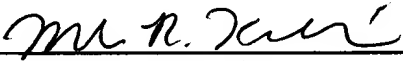
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Applicants believe that the claims are in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call either of the undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

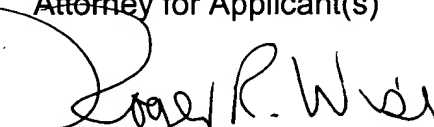
Respectfully submitted,

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